

## **CLAIMS**

What is desired to be claimed in letters patent is:

5     1. A power supply, wherein:

        said power supply is configured to be mounted inside an enclosure of an end-use  
equipment; and

        said power supply comprises a power inlet connector configured to protrude through said  
equipment enclosure.

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2. The power supply according to claim 1, wherein:

        said end-use equipment comprises at least one end-use circuit board;

        said power supply is configured to be mounted on said at least one end-use circuit board  
of said end-use equipment.

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3. The power supply according to claim 1, comprising:

        at least one internal circuit board, said internal circuit board having a first and a second  
surface; and

        a case enclosing at least one of said first and second surfaces of said at least one internal  
20     circuit board; wherein:

a space between said at least one internal circuit board and said case is at least partially filled with a thermally conducting material.

4. The power supply according to claim 3, further comprising:

5           at least one component mounted on said at least one internal circuit board; and  
            a vent path through said at least one internal circuit board and through said thermally conducting material, whereby said at least one component is enabled to exhaust fluid therethrough.

10       5. A power supply, comprising:

            a circuit board;  
            said circuit board comprising a vent hole; and  
            a case enclosing said circuit board;  
            said case filled with potting compound except for a vent path aligned with said vent hole.

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6. The power supply according to claim 5, further comprising:

            a board holder;  
            said board holder placed on said circuit board;  
            an electrical connector provided on said circuit board;  
20       said connector comprising a groove therein; and  
            a clip formed in said groove.

7. The power supply according to claim 5, wherein:

said power supply is baked to cure said potting compound.

8. The power supply according to claim 7, wherein:

5        said power supply is baked at a temperature in the range from 80-120°C for a period of 5-15 minutes.

9. The power supply according to claim 8, wherein:

said power supply is baked at 100°C for 10 minutes.

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10. The power supply according to claim 5, wherein:

said vent path is formed by blocking said potting compound from filling an area proximate said vent hole.

15        11. The power supply according to claim 5, wherein:

at least one locating groove in an interior surface of said case;  
said circuit board located in said locating groove.

12. The power supply according to claim 5, wherein:

20        at least one notch in a lower edge of said case;  
said circuit board located in said notch.

13. A method for assembling a power supply, comprising the steps of:

providing at least one internal circuit board;

said at least one internal circuit board comprising a vent hole;

5 providing a case;

placing said at least one internal circuit board in said case;

plugging said vent hole; and

filling said case with potting compound.

10 14. The method according to claim 13, further comprising the steps of:

providing a board holder;

placing said board holder on said circuit board;

providing a power inlet connector on said circuit board;

said power inlet connector comprising a groove therein

15 providing a clip; and

sliding said clip into said groove.

15. The method according to claim 13, further comprising the step of:

baking said power supply.

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16. The method according to claim 15, wherein:

said power supply is baked at a temperature in the range from 80-120°C for a period of 5-15 minutes.

17. The method according to claim 16, wherein:

5        said power supply is baked at 100°C for 10 minutes.

18. The method according to claim 15, further comprising the step of:

after said power supply has cooled, unplugging said vent hole.

10       19. The method according to claim 13, further comprising the steps of:

after said step of filling said case with potting compound, unplugging said vent hole.

20. The method according to claim 13, further comprising the step of:

providing at least one locating groove in an interior surface of said case;

15       locating said circuit board in said locating groove.

21. The method according to claim 13, further comprising the step of:

providing at least one notch in a lower edge of said case;

locating said circuit board in said notch.

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